

# PATENT ABSTRACTS OF JAPAN

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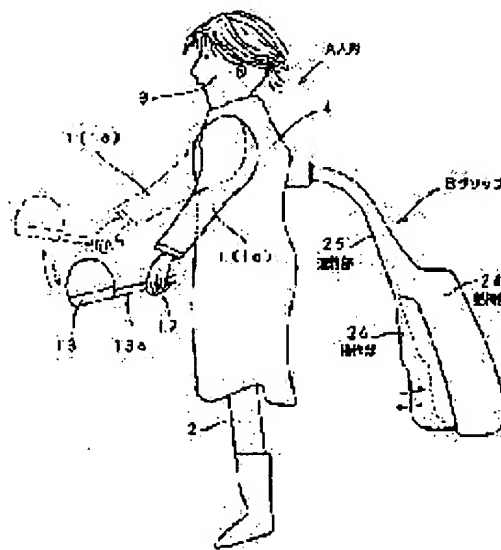
## (54) DOLL DRIVING DEVICE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To give the impression that a doll is autonomously operated to an observer not only when the doll can be erected alone but also when it cannot be erected alone.

**SOLUTION:** This doll driving device is constituted of a doll A and a grip B. The doll A is provided with moving sections such as upper limbs, lower limbs, and a neck, an input section, and a transmission section transmitting the power given to the input section to the moving section. The moving section is moved by the driving force given from the input section. The doll A is provided with a grip coupling section, and the input section faces the grip coupling section. The grip B is provided with a hold section 24, a connection section 25 integrally

extended from the hold section 24 and connected to the grip connection section at the end section, an operation section 26 operated by a hand holding the hold section 24, and a driving force transmitting member inserted into the connection section 25 and transmitting the driving force to the input section via the operation of the operation section 26. The grip B is connected to the doll A by the connection section 25. When the hold section of the grip B is gripped and the operation section is operated, the moving section of the doll A is moved.



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## CLAIMS

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### [Claim(s)]

[Claim 1] It consists of a doll and a grip. Said doll With moving part, such as an upper extremity, membrum inferius, or a neck While having the input section and the transmission section which transmits the power given to the input section to said moving part, and said moving part's moving according to the external force given from said input section and preparing a grip bond part in said doll Said input section is made to have faced the grip bond part. Said grip The grasping section and the connection section which is extended from the grasping section to one and by which a point is combined with said grip bond part, In the condition of an end being combined with the control unit operated by the hand which grasps said grasping section by the control unit, inserting in said connection circles, having the power transfer member to which the other end was located in the point of the connection section, and having connected the connection section with the grip bond part The doll driving gear characterized by transmitting driving force to the input section of said doll through a power transfer member by actuation of said control unit.

[Claim 2] A grip is a doll driving gear according to claim 1 characterized by being combined free [ attachment and detachment ] to a doll in the connection section and a grip bond part.

## DETAILED DESCRIPTION

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### [Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the doll driving gear for moving moving part, such as the upper extremity and membrum inferius of a doll, or a neck, according to the force given from the outside.

[0002]

[Description of the Prior Art] the round trip to which the conventional doll driving gear for moving moving part, such as the upper extremity and membrum inferius of a doll, or a neck, according to the force given from the outside projects in the exterior of a doll -- while preparing the input sections, such as a movable projection and a rotation knob, it has the transmission section which transmits the force given from the input section to moving part, and is constituted. And in order to have moved the moving part of the doll, it had a doll in the hand, and the projection of the input section was pushed with the finger, and the knob was rotated.

[0003]

[Problem(s) to be Solved by the Invention] therefore, the doll is moving a neck and hand and foot with its intention autonomously [ it is truly clear in appearance to be moved by the intention of those who have a doll heteronomously, and / a doll ] -- as -- since it was not visible, the situation cannot be more satisfied with the small child who is going to enjoy sympathy with a doll of the situation was suited.

[0004] An air pump is built in the control unit which became independent of the body of a toy in 4 foot animal toys. By extending a flexible pipe from the air pump, combining with the rubber bellows which built the tip of the pipe in the body of a toy, and

connecting moving part, such as a jaw, a tail, an eyeball, and a lug, with the rubber bellows. Although the thing for which moving part was made to exercise is known for many years if actuation of compression release of a control unit etc. is repeated. Since it was always combined, the pipe had an inapplicable trouble in the toy which cannot play the condition of having become independent about the body of a toy, and cannot stand up independently.

[0005] This invention is made in view of the above-mentioned point, and the purpose is in offering the doll driving gear which a doll nurses the impression which operates autonomously and gives to a person also in the case of the doll which cannot stand up independently as well as the case of the doll which can stand up independently.

[0006]

[Means for Solving the Problem] In order to attain the above-mentioned purpose, the doll driving gear of this invention consists of a doll and a grip. A doll With moving part, such as an upper extremity, membrum inferius, or a neck. While having the input section and the transmission section which transmits the power given to the input section to said moving part, and said moving part's moving according to the external force given from said input section and preparing a grip bond part in the doll. Having made said input section face the grip bond part and a grip. The grasping section and the connection section which is extended from the grasping section to one and by which a point is combined with said grip bond part, An end is combined with the control unit operated by the hand which grasps said grasping section by the control unit. Said connection circles are inserted in, and it has the power transfer member to which the other end was located in the point of the connection section, and is characterized by transmitting driving force to said input section through a power transfer member by actuation of said control unit, where the connection section is connected with a grip bond part. By the above-mentioned configuration, a doll can grasp a grip and can maintain it into a standing-up posture. And if the grasping section is grasped and a control unit is operated, driving force will be transmitted to the input section of a doll through a power transfer member. Therefore, corresponding to actuation of a control unit, as for a doll, moving part, such as hand and foot and a neck, exercises.

[0007] As for a grip, it is desirable to be combined free [ attachment and detachment ] to a doll in the connection section and a grip bond part. By such configuration, a doll can play, where a grip is removed from now on.

[0008]

[Embodiment of the Invention] Next, the example of a gestalt of operation of this invention is concretely explained based on a drawing. For the side elevation furnished with the doll driving gear which drawing 1 requires for this invention of a doll, the decomposition perspective view of an important section in which drawing 2 shows the configuration by the side of a doll, the perspective view in which drawing 3 shows the assembly condition of this important section, and drawing 4, the side elevation of a grip and drawing 5 are [ the front view at the tip of the connection section of a grip and drawing 7 of this sectional view and drawing 6 ] the top views at the tip of this connection section.

[0009] The doll driving gear concerning this invention consists of grips B combined with Doll A and its doll free [ attachment and detachment ]. Doll A has moving part, such as an upper extremity 1, membrum inferius 2, a neck 3, or an eyeball.

[0010] Although the doll driving gear of this invention is that make any of the above-mentioned moving part of a doll exercise, or single moving part or two or more moving part can choose it as arbitration, the example of illustration is an example in case only the left arm makes 1a exercise among upper extremities 1.

[0011] As shown in drawing 2 and drawing 3 , in order for the fuselage 4 of Doll A to make it possible to hold the arms 1a and 1b on either side free [ rotation ] focusing on the root, While inserting two or more connection pins (not shown) by which the opposed face of thorax material 4a by which 2 division formation was carried out, and regions-of-back material 4b is compared as usual, and it has protruded on the inside of regions-of-back material 4b in the cylinder 5 which has protruded on the inside of thorax material 4a By inserting a screw from the bis-hole 6 prepared in the tooth back of regions-of-back material 4b, and thrusting into bis-receptacle 5' formed in thorax material 4a, a fuselage 4 is constituted and it has the hole 7 for making the near section penetrate Armsa [ 1 ] and 1b joint.

[0012] And as shown in drawing 2 , it has a small diameter part 8 at the root, the edge of \*\*\*\* 7 on the left-hand side of a fuselage 4 is fitted into the small diameter part 8; and, as for left arm 1a, left arm 1a is held free [ rotation ] focusing on the root. Moreover, left arm 1a has the shank 9 prolonged in the direction of right arm 1b from a small diameter part 8, and the bearing 10 which has formed the tip of the shank 9 in the inside right-hand side of thorax material 4a is made to have supported it free [ rotation ]. and -- the left arm -- one -- a -- a shank -- nine -- middle -- a cam -- 11 -- fixing -- having -- the -- a cam -- \*\*\*\* -- a tip -- a direction -- opening -- carrying out -- notching -- a hole -- 11 -- ' -- forming -- \*\*\*\* .

[0013] In addition, the hand 12 of left arm 1a forms the ring with five fingers, inserts shank 13a of the cooking devices 13, such as a frying pan, in the part of the ring, and it enables it to make it have held it.

[0014] When right arm 1b as well as left arm 1a has a small diameter part 8 at the root and fits the edge of \*\*\*\* 7 on the right-hand side of a fuselage 4 into the small diameter part fundamentally, right arm 1b is held free [ rotation ] focusing on the root.

[0015] Moreover, the projection 14 of the inside of thorax material 4a which projects in the direction of the back in the center mostly is formed, and coiled spring 15 is held at the projection 14.

[0016] 16 is the input section and has the configuration which can be pushed without becoming painful by the fingertip preferably, the projection 17 which has a size, and the shaft 18 extended to the longitudinal direction of the projection. The pin 19 which projects in the direction of a right angle to a shaft 18 in the pars intermedia of the input section 16 is formed through the attachment member 20 of L typeface. The projection 17 of the input section is inserted in the hole 21 formed in the center of regions-of-back material 4b, and as shown in drawing 3 , it is projected at the tooth back from regions-of-back material 4b.

[0017] The shaft 18 is inserted in the core of coiled spring 15. The attachment member 20 functions as a positioning member in the edge of coiled spring 15, and when the input section 16 is energized by coiled spring 15 and contacts around the hole 21 of regions-of-back material 4b, it functions as a stopper.

[0018] Moreover, if coiled spring 15 is resisted and the projection 17 which fitting of said pin 19 is gently carried out to notching hole 11' of the cam 11 of left arm 1a, therefore

has been projected at the tooth back of regions-of-back material 4b of drawing 3 is pushed in in the direction of a breast In order that a pin 19 may move in the direction of thorax material 4a and a cam 11 may rotate a shaft 9 as a core in connection with this, left arm 1a is rocked up and down. Thus, the pin 19, the cam 11, and the shaft 9 constitute the transmission section for the projection 17 of the input section 16 to transmit the power applied from the exterior to left arm 1a.

[0019] The tubed grip bond part 22 which projects in the direction of the back from the perimeter of a hole 21 is formed in the tooth back of regions-of-back material 4b. The projection 17 of said input section 16 is projected from the tip of the grip bond part 22, as shown in drawing 3 . Therefore, by having Doll A in a hand and repeating pushing the tip of projection 17 by the fingertip, and loosening the force to push, as shown in drawing 1 , vertical motion of left arm 1a of a doll is repeatable.

[0020] The projection 23 for positioning which projects on both the outsides along with a slanting line to the vertical line PL passing through the core of the back of a doll is formed in the edge of the grip bond part 22. On the other hand, Grip B has the grasping section 24 which can be grasped single hand, the connection section 25 prolonged the upper part and ahead from the end section of the grasping section, and the control unit 26 which receives the force from the finger which is formed in the grasping section 24 and grasps the grasping section so that it may illustrate to drawing 4 .

[0021] The connection section 25 is formed in tubed and cup-like bond part 25a is formed in the point. And the bore of bond part 25a is made almost the same as that of the outer diameter of the grip bond part 22 of said doll A. And when rate slit 25b extended in the grasping section 24 direction is prepared from the point of bond part 25a and the closet of the grip bond part 22 is carried out into the bond part, after the bore of bond part 25a is expanded, it reduces. Bond part 25a and the grip bond part 22 fit in closely, and it is made to be fixed.

[0022] As shown in drawing 6 , crevice 25c corresponding to the both sides which met the slanting straight line to the lengthwise direction of a grip is formed in the inner skin of bond part 25a in location and geometrically with the projection 23 for positioning of said grip bond part. Furthermore, 25d of fitting holes which penetrate the peripheral wall in the vertical direction is formed in the upper limit section and the lower limit section of bond part 25a.

[0023] In in this way, the condition of having made bond part 25a at the tip of the connection section 25 of a grip countering the grip bond part 22 of the tooth back of Doll A, and having made the projection 23 for positioning of a grip bond part, and crevice 25c of the bond part of a clip agreeing in location If bond part 25a is turned and forced on the tooth back of a doll, fitting of projection 17 and the bond part 25a is carried out and Grip B is further rotated in the predetermined direction to the circumference of the medial axis of bond part 25a If the bore of a bond part 25 is expanded through rate slit 25b and the projection 23 for positioning fits into 25d of fitting holes, the path of a bond part will be restored, and it will be connected so that Grip B may not secede from Doll A.

[0024] In addition, since a bore can expand and idle by dividing into bond part 25a and having prepared the slit when the still larger force is accidentally applied to Grip B, breakage of the projection 23 for positioning and bond part 25a is prevented.

[0025] The power transfer member 27 is inserted in in the connection section 25 of Grip B. 1st power transfer member 27a formed with the hard material which extends the



power transfer member 27 in the grasping section 24 to the connection section 25, 2nd power transfer member 27b to which an end is combined with the edge of the 1st power transfer member, and the other end exists in near [ of bond part 25a ] and which has the flexibility formed with the coil spring as an example, It is combined with the other end of the 2nd power transfer member, and consists of 3rd power transfer member 27c supported free [ frequent appearance ] to bond part 25a. The end of 1st power transfer member 27a exists near the free edge of the control unit 26 held free [ rocking ] into the grasping section 24. The control unit 26 is attached free [ rocking ] focusing on the pivot 28 prepared near the connection of the connection section 25 and the grasping section 24, and it is energized by the energization member 29 which it had between the control unit 26 and pars basilaris ossis occipitalis of the grasping section 24 so that the free edge of a control unit 26 may project in the method of outside (the example of illustration front) from the grasping section 24.

[0026] The shaft 31 with which long hole 26a is formed in pars intermedia, and the control unit 26 was formed in the location corresponding to one top-most vertices of the triangle of the rocking cam 330 at the long hole is inserted. The rocking cam 30 is supported free [ rocking ] focusing on the pivot 32 by inserting the pivot 32 currently fixed to the grasping section 24 in the hole prepared in the location corresponding to another top-most vertices. Furthermore, the end of 1st power transfer member 27a is supported pivotably with the shaft 33 prepared in the location corresponding to another top-most vertices of the rocking cam 30.

[0027] If the grasping section 24 of Grip B is grasped by hand and a control unit 26 is pushed in the arrow-head a1 direction of drawing 5 by the above-mentioned configuration, since the rocking cam 30 will rotate clockwise in drawing 5 centering on a shaft 32, the inside of the connection section 25 is moved to 1st power transfer member 25a and 2nd power transfer member 27b in the direction of a tip, and they push aside 3rd power transfer member 27c in the direction of a tip of bond part 25a. Also when 2nd power transfer member 27b is formed with the ingredient which has the flexibility of coiled spring etc. and the pars intermedia of the connection section 25 is curving, transfer of power can be performed smoothly. On the other hand, if the force of pushing a control unit 26 is loosened, since a control unit 26 will return to the original location by the energization member 29, the rotation return of the rocking cam 30 is carried out in the original location, therefore 3rd power transfer member 27c also retreats to the original location.

[0028] With and the posture in which lifted the doll freely, for example, moved to the location of arbitration, such as a kitchen of a house toy, and it was made to stand up by grasping the grasping section 26 where the above-mentioned grip B is combined with Doll A By pushing a control unit 26 with the finger which grasps the grasping section 24, the projection 17 of the input section of a doll is pushed in by 3rd power actuation member 27c. Actuation same with having made left arm 1a of the doll take up and down, and having given the left hand 12, for example, cooking using the cooking devices 13, such as a frying pan, can be used as the doll, or the behavior, posture, etc. can be seen, and it can be enjoyed.

[0029] In this case, since a doll nurses an impression to which the doll is carrying out actuation of cooking and others autonomously based on the self-intention since it is not held by hand directly, and is held through the grip and that doll is moving moving part,

such as an arm, and it gives it to a person, the sympathy and satisfaction which are not acquired can be given with the conventional movable doll.

[0030] In addition, although the above-mentioned example explained the case of the left arm as an example of moving part, it can be constituted so that other moving part, such as a right arm, a neck, or an eyeball, may be operated individually or in parallel. Any of what can stand up independently, and the thing which can stand up and is not are sufficient as a doll.

[0031] Moreover, the input section prepared in a doll prepares not only the one above-mentioned thing but plurality, combines a grip with each, and grasps each grip with both hands, makes an arm on either side exercise for each \*\*, or can make an arm, a neck or an arm, an eyeball, etc. exercise.

[0032]

[Effect of the Invention] As mentioned above, since according to this invention a doll nurses the impression which operates autonomously and gives a person, sympathy is memorized in actuation of a doll and doll play becomes much more pleasant. Moreover, when the attachment and detachment of a grip to a doll are enabled, it can play a doll independent.

## TECHNICAL FIELD

[Field of the Invention] This invention relates to the doll driving gear for moving moving part, such as the upper extremity and membrum inferius of a doll, or a neck, according to the force given from the outside.

## PRIOR ART

[Description of the Prior Art] the round trip to which the conventional doll driving gear for moving moving part, such as the upper extremity and membrum inferius of a doll, or a neck, according to the force given from the outside projects in the exterior of a doll -- while preparing the input sections, such as a movable projection and a rotation knob, it has the transmission section which transmits the force given from the input section to moving part, and is constituted. And in order to have moved the moving part of the doll, it had a doll in the hand, and the projection of the input section was pushed with the finger, and the knob was rotated.

## EFFECT OF THE INVENTION

[Effect of the Invention] As mentioned above, since according to this invention a doll nurses the impression which operates autonomously and gives a person, sympathy is memorized in actuation of a doll and doll play becomes much more pleasant. Moreover, when the attachment and detachment of a grip to a doll are enabled, it can play a doll independent.

## TECHNICAL PROBLEM

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[Problem(s) to be Solved by the Invention] therefore, the doll is moving a neck and hand and foot with its intention autonomously [ it is truly clear in appearance to be moved by the intention of those who have a doll heteronomously, and / a doll ] -- as -- since it was not visible, the situation cannot be more satisfied with the small child who is going to enjoy sympathy with a doll of the situation was suited.

[0004] An air pump is built in the control unit which became independent of the body of a toy in 4 foot animal toys. By extending a flexible pipe from the air pump, combining with the rubber bellows which built the tip of the pipe in the body of a toy, and connecting moving part, such as a jaw, a tail, an eyeball, and a lug, with the rubber bellows Although the thing for which moving part was made to exercise is known for many years if actuation of compression release of a control unit etc. is repeated Since it was always combined, the pipe had an inapplicable trouble in the toy which cannot play the condition of having become independent about the body of a toy, and cannot stand up independently.

[0005] This invention is made in view of the above-mentioned point, and the purpose is in offering the doll driving gear which a doll nurses the impression which operates autonomously and gives to a person also in the case of the doll which cannot stand up independently as well as the case of the doll which can stand up independently.

## MEANS

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[Means for Solving the Problem] In order to attain the above-mentioned purpose, the doll driving gear of this invention It consists of a doll and a grip. A doll With moving part, such as an upper extremity, membrum inferius, or a neck While having the input section and the transmission section which transmits the power given to the input section to said moving part, and said moving part's moving according to the external force given from said input section and preparing a grip bond part in the doll Having made said input section face the grip bond part and a grip The grasping section and the connection section which is extended from the grasping section to one and by which a point is combined with said grip bond part, An end is combined with the control unit operated by the hand which grasps said grasping section by the control unit. Said connection circles are inserted in, and it has the power transfer member to which the other end was located in the point of the connection section, and is characterized by transmitting driving force to said input section through a power transfer member by actuation of said control unit, where the connection section is connected with a grip bond part. By the above-mentioned configuration, a doll can grasp a grip and can maintain it into a standing-up posture. And if the grasping section is grasped and a control unit is operated, driving force will be transmitted to the input section of a doll through a power transfer member. Therefore, corresponding to actuation of a control unit, as for a doll, moving part, such as hand and foot and a neck, exercises.

[0007] As for a grip, it is desirable to be combined free [ attachment and detachment ] to a doll in the connection section and a grip bond part. By such configuration, a doll can play, where a grip is removed from now on.

[0008]

[Embodiment of the Invention] Next, the example of a gestalt of operation of this invention is concretely explained based on a drawing. For the side elevation furnished with the doll driving gear which drawing 1 requires for this invention of a doll, the decomposition perspective view of an important section in which drawing 2 shows the configuration by the side of a doll, the perspective view in which drawing 3 shows the assembly condition of this important section, and drawing 4, the side elevation of a grip and drawing 5 are [ the front view at the tip of the connection section of a grip and drawing 7 of this sectional view and drawing 6 ] the top views at the tip of this connection section.

[0009] The doll driving gear concerning this invention consists of grips B combined with Doll A and its doll free [ attachment and detachment ]. Doll A has moving part, such as an upper extremity 1, membrum inferius 2, a neck 3, or an eyeball.

[0010] Although the doll driving gear of this invention is that make any of the above-mentioned moving part of a doll exercise, or single moving part or two or more moving part can choose it as arbitration, the example of illustration is an example in case only the left arm makes 1a exercise among upper extremities 1.

[0011] As shown in drawing 2 and drawing 3, in order for the fuselage 4 of Doll A to make it possible to hold the arms 1a and 1b on either side free [ rotation ] focusing on the root, While inserting two or more connection pins (not shown) by which the opposed face of thorax material 4a by which 2 division formation was carried out, and regions-of-back material 4b is compared as usual, and it has protruded on the inside of regions-of-back material 4b in the cylinder 5 which has protruded on the inside of thorax material 4a By inserting a screw from the bis-hole 6 prepared in the tooth back of regions-of-back material 4b, and thrusting into bis-receptacle 5' formed in thorax material 4a, a fuselage 4 is constituted and it has the hole 7 for making the near section penetrate Armsa [ 1 ] and 1b joint.

[0012] And as shown in drawing 2, it has a small diameter part 8 at the root, the edge of \*\*\*\* 7 on the left-hand side of a fuselage 4 is fitted into the small diameter part 8, and, as for left arm 1a, left arm 1a is held free [ rotation ] focusing on the root. Moreover, left arm 1a has the shank 9 prolonged in the direction of right arm 1b from a small diameter part 8, and the bearing 10 which has formed the tip of the shank 9 in the inside right-hand side of thorax material 4a is made to have supported it free [ rotation ]. and -- the left arm -- one -- a -- a shank -- nine -- middle -- a cam -- 11 -- fixing -- having -- the -- a cam -- \*\*\*\* -- a tip -- a direction -- opening -- carrying out -- notching -- a hole -- 11 -- ' -- forming -- \*\*\*\* .

[0013] In addition, the hand 12 of left arm 1a forms the ring with five fingers, inserts shank 13a of the cooking devices 13, such as a frying pan, in the part of the ring, and it enables it to make it have held it.

[0014] When right arm 1b as well as left arm 1a has a small diameter part 8 at the root and fits the edge of \*\*\*\* 7 on the right-hand side of a fuselage 4 into the small diameter part fundamentally, right arm 1b is held free [ rotation ] focusing on the root.

[0015] Moreover, the projection 14 of the inside of thorax material 4a which projects in the direction of the back in the center mostly is formed, and coiled spring 15 is held at the projection 14.

[0016] 16 is the input section and has the configuration which can be pushed without becoming painful by the fingertip preferably, the projection 17 which has a size, and the

shaft 18 extended to the longitudinal direction of the projection. The pin 19 which projects in the direction of a right angle to a shaft 18 in the pars intermedia of the input section 16 is formed through the attachment member 20 of L typeface. The projection 17 of the input section is inserted in the hole 21 formed in the center of regions-of-back material 4b, and as shown in drawing 3 , it is projected at the tooth back from regions-of-back material 4b.

[0017] The shaft 18 is inserted in the core of coiled spring 15. The attachment member 20 functions as a positioning member in the edge of coiled spring 15, and when the input section 16 is energized by coiled spring 15 and contacts around the hole 21 of regions-of-back material 4b, it functions as a stopper.

[0018] Moreover, if coiled spring 15 is resisted and the projection 17 which fitting of said pin 19 is gently carried out to notching hole 11' of the cam 11 of left arm 1a, therefore has been projected at the tooth back of regions-of-back material 4b of drawing 3 is pushed in in the direction of a breast In order that a pin 19 may move in the direction of thorax material 4a and a cam 11 may rotate a shaft 9 as a core in connection with this, left arm 1a is rocked up and down. Thus, the pin 19, the cam 11, and the shaft 9 constitute the transmission section for the projection 17 of the input section 16 to transmit the power applied from the exterior to left arm 1a.

[0019] The tubed grip bond part 22 which projects in the direction of the back from the perimeter of a hole 21 is formed in the tooth back of regions-of-back material 4b. The projection 17 of said input section 16 is projected from the tip of the grip bond part 22, as shown in drawing 3 . Therefore, by having Doll A in a hand and repeating pushing the tip of projection 17 by the fingertip, and loosening the force to push, as shown in drawing 1 , vertical motion of left arm 1a of a doll is repeatable.

[0020] The projection 23 for positioning which projects on both the outsides along with a slanting line to the vertical line PL passing through the core of the back of a doll is formed in the edge of the grip bond part 22. On the other hand, Grip B has the grasping section 24 which can be grasped single hand, the connection section 25 prolonged the upper part and ahead from the end section of the grasping section, and the control unit 26 which receives the force from the finger which is formed in the grasping section 24 and grasps the grasping section so that it may illustrate to drawing 4 .

[0021] The connection section 25 is formed in tubed and cup-like bond part 25a is formed in the point. And the bore of bond part 25a is made almost the same as that of the outer diameter of the grip bond part 22 of said doll A. And when rate slit 25b extended in the grasping section 24 direction is prepared from the point of bond part 25a and the closet of the grip bond part 22 is carried out into the bond part, after the bore of bond part 25a is expanded, it reduces. Bond part 25a and the grip bond part 22 fit in closely, and it is made to be fixed.

[0022] As shown in drawing 6 , crevice 25c corresponding to the both sides which met the slanting straight line to the lengthwise direction of a grip is formed in the inner skin of bond part 25a in location and geometrically with the projection 23 for positioning of said grip bond part. Furthermore, 25d of fitting holes which penetrate the peripheral wall in the vertical direction is formed in the upper limit section and the lower limit section of bond part 25a.

[0023] In in this way, the condition of having made bond part 25a at the tip of the connection section 25 of a grip countering the grip bond part 22 of the tooth back of Doll

A, and having made the projection 23 for positioning of a grip bond part, and crevice 25c of the bond part of a clip agreeing in location If bond part 25a is turned and forced on the tooth back of a doll, fitting of projection 17 and the bond part 25a is carried out and Grip B is further rotated in the predetermined direction to the circumference of the medial axis of bond part 25a If the bore of a bond part 25 is expanded through rate slit 25b and the projection 23 for positioning fits into 25d of fitting holes, the path of a bond part will be restored, and it will be connected so that Grip B may not secede from Doll A.

[0024] In addition, since a bore can expand and idle by dividing into bond part 25a and having prepared the slit when the still larger force is accidentally applied to Grip B, breakage of the projection 23 for positioning and bond part 25a is prevented.

[0025] The power transfer member 27 is inserted in in the connection section 25 of Grip B. 1st power transfer member 27a formed with the hard material which extends the power transfer member 27 in the grasping section 24 to the connection section 25, 2nd power transfer member 27b to which an end is combined with the edge of the 1st power transfer member, and the other end exists in near [ of bond part 25a ] and which has the flexibility formed with the coil spring as an example, It is combined with the other end of the 2nd power transfer member, and consists of 3rd power transfer member 27c supported free [ frequent appearance ] to bond part 25a. The end of 1st power transfer member 27a exists near the free edge of the control unit 26 held free [ rocking ] into the grasping section 24. The control unit 26 is attached free [ rocking ] focusing on the pivot 28 prepared near the connection of the connection section 25 and the grasping section 24, and it is energized by the energization member 29 which it had between the control unit 26 and pars basilaris ossis occipitalis of the grasping section 24 so that the free edge of a control unit 26 may project in the method of outside (the example of illustration front) from the grasping section 24.

[0026] The shaft 31 with which long hole 26a is formed in pars intermedia, and the control unit 26 was formed in the location corresponding to one top-most vertices of the triangle of the rocking cam 330 at the long hole is inserted. The rocking cam 30 is supported free [ rocking ] focusing on the pivot 32 by inserting the pivot 32 currently fixed to the grasping section 24 in the hole prepared in the location corresponding to another top-most vertices. Furthermore, the end of 1st power transfer member 27a is supported pivotably with the shaft 33 prepared in the location corresponding to another top-most vertices of the rocking cam 30.

[0027] If the grasping section 24 of Grip B is grasped by hand and a control unit 26 is pushed in the arrow-head a1 direction of drawing 5 by the above-mentioned configuration, since the rocking cam 30 will rotate clockwise in drawing 5 centering on a shaft 32, the inside of the connection section 25 is moved to 1st power transfer member 25a and 2nd power transfer member 27b in the direction of a tip, and they push aside 3rd power transfer member 27c in the direction of a tip of bond part 25a. Also when 2nd power transfer member 27b is formed with the ingredient which has the flexibility of coiled spring etc. and the pars intermedia of the connection section 25 is curving, transfer of power can be performed smoothly. On the other hand, if the force of pushing a control unit 26 is loosened, since a control unit 26 will return to the original location by the energization member 29, the rotation return of the rocking cam 30 is carried out in the original location, therefore 3rd power transfer member 27c also retreats to the original location.

[0028] With and the posture in which lifted the doll freely, for example, moved to the location of arbitration, such as a kitchen of a house toy, and it was made to stand up by grasping the grasping section 26 where the above-mentioned grip B is combined with Doll A By pushing a control unit 26 with the finger which grasps the grasping section 24, the projection 17 of the input section of a doll is pushed in by 3rd power actuation member 27c. Actuation same with having made left arm 1a of the doll take up and down, and having given the left hand 12, for example, cooking using the cooking devices 13, such as a frying pan, can be used as the doll, or the behavior, posture, etc. can be seen, and it can be enjoyed.

[0029] In this case, since a doll nurses an impression to which the doll is carrying out actuation of cooking and others autonomously based on the self-intention since it is not held by hand directly, and is held through the grip and that doll is moving moving part, such as an arm, and it gives it to a person, the sympathy and satisfaction which are not acquired can be given with the conventional movable doll.

[0030] In addition, although the above-mentioned example explained the case of the left arm as an example of moving part, it can be constituted so that other moving part, such as a right arm, a neck, or an eyeball, may be operated individually or in parallel. Any of what can stand up independently, and the thing which can stand up and is not are sufficient as a doll.

[0031] Moreover, the input section prepared in a doll prepares not only the one above-mentioned thing but plurality, combines a grip with each, and grasps each grip with both hands, makes an arm on either side exercise for each \*\*, or can make an arm, a neck or an arm, an eyeball, etc. exercise.

## DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] It is the side elevation furnished with the doll driving gear concerning this invention of a doll.

[Drawing 2] It is the decomposition perspective view of an important section showing the configuration of a doll.

[Drawing 3] It is the perspective view showing the assembly condition of this important section.

[Drawing 4] It is the side elevation of a grip.

[Drawing 5] It is this sectional view.

[Drawing 6] It is the front view at the tip of the connection section of a grip.

[Drawing 7] It is this top view.

[Description of Notations]

A Doll

1a Left arm (moving part)

1b Right arm

9, 13-20 Transmission section

16, 17, 18 Input section

9 Shaft

13 Cam

14 Projection

15 Coiled Spring  
16 Input Member  
17 Projection  
18 Shaft  
19 Pin  
20 Attachment Member  
21 Hole  
22 Grip Bond Part  
B Grip  
24 Grasping Section  
25 Connection Section  
26 Control Unit  
27 Power Transfer Member  
28 Pivot  
29 Energization Member  
30 Rocking Cam



\* NOTICES \*

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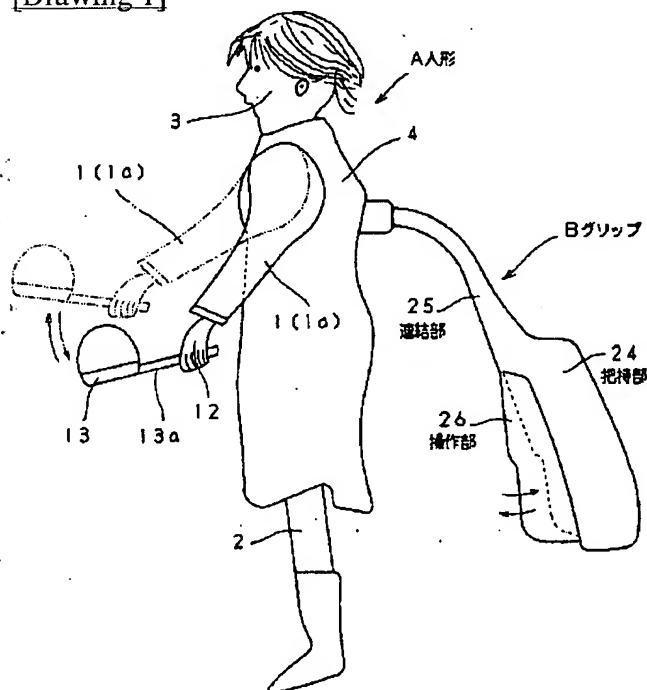
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

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DRAWINGS

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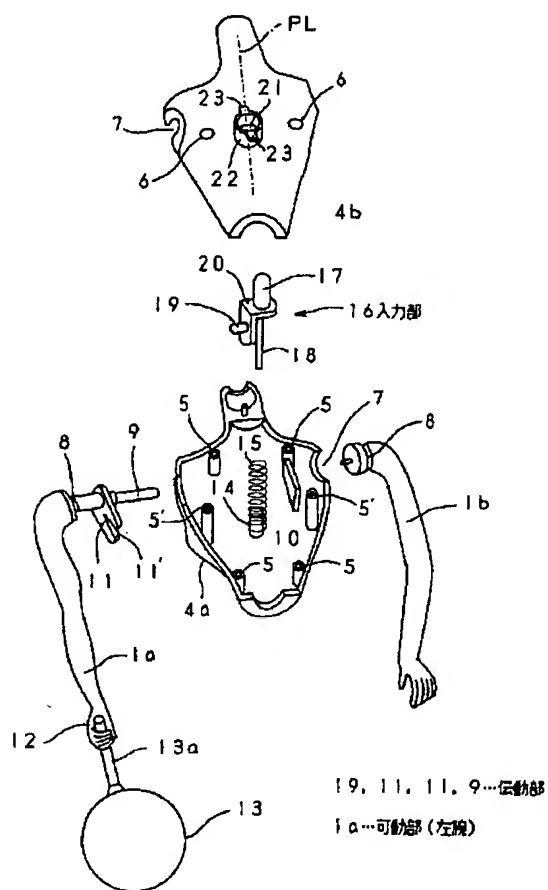
[Drawing 1]



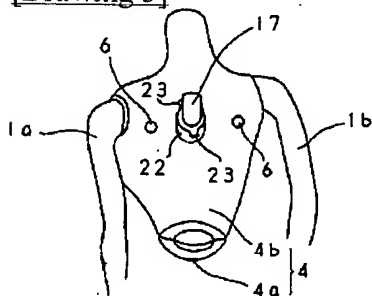
[Drawing 2]

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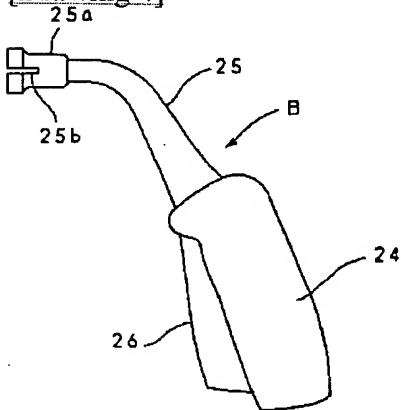
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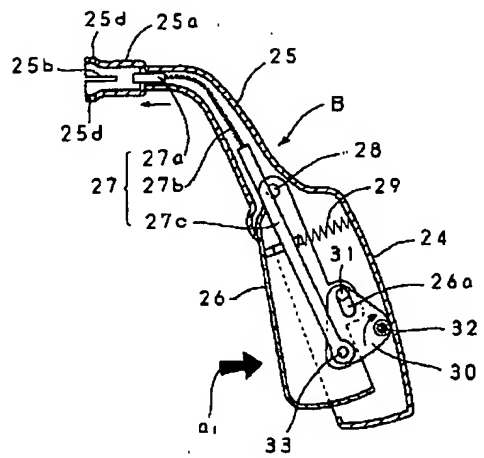
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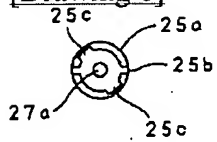
[Drawing 4]



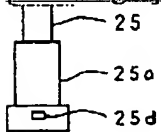
[Drawing 5]



[Drawing 6]



[Drawing 7]



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